Remarks/Arguments

Applicant thanks the Examiner for the Office Action mailed September 11, 2007. The status of the application is as follows:

- Claims 1-20 are pending. Claims 1-7 have been amended. Claim 8-20 have been added.

- Claims 5 and 6 are objected to for minor informalities.

- Claims 3-6 are rejected under 35 U.S.C. §112, second paragraph.

- Claims 1 and 3-7 are rejected under 35 U.S.C. §102(b) as being anticipated by Kaiserswerth et al. (US 6,195,701).

- Claim 2 is rejected under 35 U.S.C. §103(a) as being unpatentable over Kaiserswerth et al. in view of Kamiya (US Pub. 2001/0026558).

The objection and rejection are discussed below.

The Objection to Claims 5 and 6

Claims 5 and 6 are objected to for minor informalities. In particular, the Office notes that claims 5 and 6 each include multiple sentences. Claims 5 and 6 have been amended herein to cure the informalities. As such, this objection should be withdrawn.

The Objection of Claims 3-6 under 35 U.S.C. §112, second paragraph

Claims 3-6 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Office asserts that claims 3-6 are written in such a way that it would not be readily apparent to one of ordinary skill in the art what the application intends to claim as the invention. Applicant traverses the above-noted objections; the claims are written in such a way that it would be readily apparent to one or ordinary skill in the art what the application intends to claim as the invention.

During examination, the USPTO must give claims their broadest reasonable interpretation *in light of the specification*. (See MPEP 2111.01 *citing* In re American Academy of Science Tech Center, 367 F.3d 1359, 1369 (Fed. Cir. 2004)). The specification provides non-limiting examples clearly describing the limitations set forth in claims 3-6, and claims 3-6 are written such that they can be mapped to these examples. As such, the claims are written in such a way that it would be readily apparent to one or ordinary skill in the art what the application intends to claim as the invention. Therefore, the above-noted objections should be withdrawn.

The Rejection of Claims 1 and 3-7 under 35 U.S.C. §102(b)

Claims 1 and 3-7 stand rejected under 35 U.S.C. §102(b) as being anticipated by Kaiserwerth et al. This rejection should be withdrawn because Kaiserwerth et al. does not teach each and every aspect set forth in subject claims and, thus, does not anticipate claims 1 and 3-7.

> A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed. Cir. 1987)). MPEP §2131

Independent **claim 1** is directed towards a method and recites, *inter alia*, "scheduling only the schedulable component that can contribute at the total earliest time to the output of the real time system." Kaiserwerth et al. does not teach or suggest this claimed method step.

More particularly, Kaiserwerth et al. relates to synchronizing and scheduling multiple data streams and real time tasks. As disclosed in Kaiserwerth et al., pointers pointing to the data streams are kept in a first table, and time marks for the data streams are stored in second table. When a time mark is reached, the first table is updated. When a trigger condition is fulfilled, the pointer to the data stream is made available, and the pointer is used to retrieve the respective data stream for playout. (See Abstract).

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Kaiserwerth et al. discloses defining trigger conditions to *synchronize two data streams* for concurrent playout. Such trigger conditions include "IF both data units are in the READY state, THEN they can be played out." As such, as soon as the condition is fulfilled, both data units are concurrently played out. (See column 3, lines 10-24; and Fig. 3). A priority value P can be used to distinguish between data streams. However, the priority value P is used to prioritize the data streams that should not be delayed relative to the data streams that can be delayed. As such, the higher priority streams can be concurrently played out and, after a delay, lower priority streams can be concurrently played with the higher priority streams. (See column 3, lines 25-36; and Fig. 4).

Hence, Kaiserwerth et al. does not teach or suggest scheduling only one of the data streams for play out, let alone scheduling only the data stream that can be played out first. Rather, Kaiserwerth et al. teaches synchronizing multiple data streams for overlapping play out. Therefore, Kaiserwerth et al. does not teach or suggest each and every element as set forth in claim 1, and this rejection should be withdrawn.

Amended **claim 5**, which depends from claim 1 through claim 4, recites, *inter alia*, determining an earliest contribution time for each possible path by subtracting from the begin time of the predefined time interval the length of each of the predefined time intervals specified for each of the subsequent components in the path. The Office asserts this is taught in Kaiserswerth et al. at column 2, line 66 to column 3, line 2. However, this section of Kaiserswerth et al. does not contemplate the subject claim aspects. Rather, this section of Kaiserswerth et al. states that a data unit from stream 1 cannot be played out before a time mark 30 (S1Start) and it must be played out before a time mark 31 (S1End). Therefore, this rejection should be withdrawn.

Amended **claim 6**, which depends from claim 1 through claim 4, recites, *inter alia*, determining an earliest contribution time for each possible path by subtracting from the begin time of the predefined time interval, the length of each of the predefined time intervals specified for each of the subsequent components in the path, and where at least some of the predefined time intervals have been shortened by a displacement value. The Office also asserts that Kaiserswerth et al. column 2, line 66 to column 3, line 2, teaches these claim aspects. However, as discussed above this section of Kaiserswerth et al.

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states that a data unit from stream 1 cannot be played out before a time mark 30 (S1Start) and it must be played out before a time mark 31 (S1End). This does not teach or suggest the subject claim aspects. Therefore, this rejection should be withdrawn.

The Rejection of Claim 2 under 35 U.S.C. §103(a)

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Kaiserwerth et al. in view of Kamiya. This rejection should be withdrawn because the combination of Kaiserwerth et al. and Kamiya does not teach or suggest all the limitations of the subject claims and, therefore, does not establish a *prima facie* case of obvious with respect to claim 2.

> To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, (CCPA 1974). MPEP §2143.03.

Claim 2, which depends from claim 1, recites that if a number of schedulable components contribute to the output of the real time system at the same total earliest time, then scheduling of the number of components is performed using push scheduling. The Office asserts Kamiya teaches such aspects in paragraph [0031]. However, paragraph [0031] of Kamiya is silent regarding push scheduling. Paragraph [0031] simply states that there is a distributed pipeline scheduling method. Accordingly, this rejection should be withdrawn.
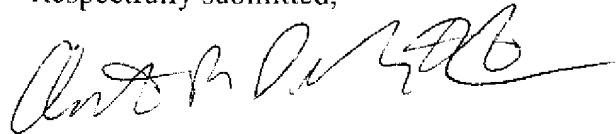
Newly Added Claims 8-20

Claims 8-20 have been added to emphasize various aspects. No new matter has been added. Entry and allowance of claims 8-20 is respectfully requested.

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Conclusion

In view of the foregoing, it is submitted that the pending claims distinguish patentably and non-obviously over the prior art of record. An early indication of allowability is earnestly solicited.

Respectfully submitted,

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